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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Muthiah Manoharan

Serial No.: 09/965,551

Group Art Unit: Not Yet Assigned

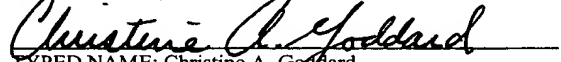
Filing Date: September 27, 2001

Examiner: Not Yet Assigned

For: CARBOHYDRATE OR 2'-MODIFIED OLIGONUCLEOTIDES HAVING  
ALTERNATING INTERNUCLEOSIDE LINKAGES

DATE OF DEPOSIT: November 5, 2001

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Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).



In accordance with §1.97(b), since this Information Disclosure Statement is being

filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in §1.491, before the mailing date of a first Office Action on the merits of the above-identified application, or before the mailing date of a first office action after the filing of request for continued examination under §1.114, no additional fee is required.

- ☐ In accordance with §1.129(a), this Information Disclosure Statement is being filed in connection with ☐the first or ☐second After Final Submission, therefore:
- ☐ Certification in Accordance with §1.97(e) is attached; or
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- ☐ Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.
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- EXCEPT THAT:
- ☐ In view of the voluminous nature of references [**list as appropriate**], and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.

☒ In accordance with §1.98(d), copies of the following references listed on the attached Form PTO-1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. §120 have been made in the instant application:

☒ Copies of references **AA-CO, CQ-DP, DR, DS, DU-DX, DZ-ES**, listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior application Serial No. **09/349,007**, filed **July 7, 1999**.

☐ If any of the foregoing publications are not available to the Examiner, Applicant will endeavor to supply copies at the Examiner's request.

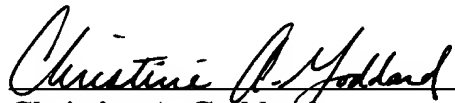
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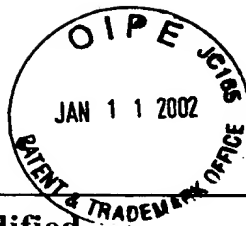
  
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<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. <b>ISIS-4847</b>	Serial No. <b>09/965,551</b>
		Applicant <b>Muthiah Manoharan</b>	
		Filing Date <b>September 27, 2001</b>	Group <b>Not Yet Assigned</b>
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>AA</b>	Albert, P.R. et al., "Antisense knockouts: molecular scalpels for the dissection of signal transduction", <i>Trends Pharmacol. Sci.</i> , <b>1994</b> , <i>15</i> , 250-254	
*	<b>AB</b>	Ausubel, F.M. et al., (eds.), <i>Current Protocols in Molecular Biology</i> , Current Publications, <b>1993</b>	
	<b>AC</b>	Baker, B.F. et al., "2'-O-(2-Methoxy)ethyl-modified Anti-intercellular Adhesion Molecule 1 (ICAM-1) Oligonucleotides Selectively Increase the ICAM-1 Translation Initiation Complex in Human Umbilical Vein Endothelial Cells", <i>J. Biol. Chem.</i> , <b>1997</b> , <i>272</i> , 11994-12000	
	<b>AD</b>	Berkow et al. (eds.), <i>The Merck Manual of Diagnosis and Therapy</i> , 15th Edition, Rahway, N.J., <b>1987</b> , 2301-2310	
	<b>AE</b>	Berkow et al. (eds.), <i>The Merck Manual of Diagnosis and Therapy</i> , 15th Edition, Rahway, N.J., <b>1987</b> , 2263-2277	
	<b>AF</b>	Berkow et al. (eds.), <i>The Merck Manual of Diagnosis and Therapy</i> , 15th Edition, Rahway, N.J., <b>1987</b> , 2283-2287	
	<b>AG</b>	Berkow et al. (eds.), <i>The Merck Manual of Diagnosis and Therapy</i> , 15th Edition, Rahway, N.J., <b>1987</b> , 2286-2292	
	<b>AH</b>	Bernhard et al., "Direct Evidence Linking Expression of Matrix Metalloproteinase 9 (92-kDa gelatinase/collagenase) to the metastatic phenotype in transformed rat embryo cells," <i>Proc. Natl. Acad. Sci. U.S.A.</i> , <b>1994</b> , <i>91</i> , 4293-4297	
	<b>AI</b>	Birkedal-Hansen, "Proteolytic Remodeling of Extracellular Matrix," <i>Curr. Op. Cell Biol.</i> , <b>1995</b> , <i>7</i> , 728-735	
	<b>AJ</b>	Boggemeyer et al., "Borrelia Burgdorferi Upregulates the Adhesion Molecules E-selectin, P-selectin, ICAM-1 and VCAM-1 on Mouse Endothelioma Cells in vitro," <i>Cell Adhes. Commun.</i> , <b>1994</b> , <i>2</i> , 145-157	
	<b>AK</b>	Cook, P.D., "Medicinal chemistry of antisense oligonucleotides - future opportunities", <i>Anti-Cancer Drug Design</i> , <b>1991</b> , <i>6</i> , 585-607	
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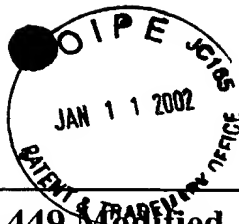
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<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>AL</b>	Crooke, S.T. et al., "Pharmacokinetic Properties of Several Novel Oligonucleotide Analogs in mice", <i>J. Pharmacol. Exp. Therapeutics</i> , <b>1996</b> , 277, 923-937	
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	<b>AP</b>	Downward, "The ras Superfamily of Small GTP-binding proteins," <i>TIBS</i> , <b>15</b> , <b>1990</b> , 469-472	
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	<b>AR</b>	Griffiths, C.E.M. et al., "Keratinocyte Intercellular Adhesion Molecule-1 (ICAM-1) Expression Precedes Derman T Lymphocyte Infiltration in Allergic Contact Dermatitis ( <i>Rhus dermatitis</i> )", <i>Am. J. Pathology.</i> , <b>1989</b> , 135, 1045-1053	
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	<b>AV</b>	Himelstein et al., "Proteases and Their Inhibitors in Invasion and Metastasis, Metalloproteinases in Tumor Progression: The Contribution of MMP-9," <i>Invasion Metastasis</i> , <b>1994-95</b> , 14, 246-258	
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	<b>AW</b>	Ho, V.C. et al., "Treatment of severe lichen planus with cyclosporine", <i>J. Am. Acad. Dermatol.</i> , <b>1990</b> , 22, 64-68	
	<b>AX</b>	Hua et al., "Inhibition of Matrix Metalloproteinase 9 Expression by a Ribozyme Blocks Metastasis in a Rat Sarcoma Model System," <i>Cancer Res.</i> , <b>1996</b> , 56, 5279-5284	
	<b>AY</b>	Hurtenbach et al., "Prednisolone Reduces Experimental Arthritis and Inflammatory Tissue Destruction in Scid Mice Infected with <i>Borrelia Burgdorferi</i> ," <i>Int. J. Immunopharmac</i> , <b>1996</b> , 18, 281-288	
	<b>AZ</b>	Kabanov, A.V., "A new class of antivirals: antisense oligonucleotides combined with a hydrophobic substituent effectively inhibit influenza virus reproduction and synthesis of virus-specific proteins in MDCK cells", <i>FEBS Letts.</i> , <b>1990</b> , 259, 327-330	
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	<b>BC</b>	Kerr et al., "Growth Factors Regulate Transin Gene Expression by c-fos-Dependent and c-fos-Independent Pathways," <i>Science</i> , <b>1988</b> , 242, 1424-1427	
	<b>BD</b>	Kroschwitz, J.I., "Polynucleotides", <i>Concise Encyclopedia of Polymer Science and Engineering</i> , <b>1990</b> , John Wiley & Sons, New York, 858-859	
	<b>BE</b>	Letsinger, R.L. et al., "Cholesteryl-conjugated oligonucleotides: Synthesis, properties and activity as inhibitors of replication of human immunodeficiency virus in cell culture", <i>Proc. Natl. Acad. Sci.</i> , <b>1989</b> , 86, 6553-6556	
	<b>BF</b>	Lisby, S. et al., "Intercellular adhesion molecule-1 (ICAM-1) expression correlated to inflammation", <i>Br. J. Dermatol.</i> , <b>1989</b> , 120, 479-484	
	<b>BG</b>	Litwin et al., "Novel Cytokine-independent Induction of Endothelial Adhesion Molecules Regulated by Platelet/Endothelial Cell Adhesion Molecule (CD31)," <i>The Journal of Cell Biology</i> , <b>1997</b> , 139, 219-228	
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	<b>BH</b>	Manoharan, M. et al., "Introduction of a Lipophilic Thioether Tether in the Minor Groove of Nucleic Acids for Antisense Applications", <i>Bioorg. Med. Chem. Letts.</i> , <b>1993</b> , 3, 2765-2770	
	<b>BI</b>	Manoharan, M. et al., "Chemical Modifications to Improve Uptake and Bioavailability of Antisense Oligonucleotides", <i>Annals NY Acad. Sciences</i> , <b>1992</b> , 660, 306-309	
*	<b>BJ</b>	Manoharan, M., <i>Antisense Research and Applications</i> , Crooke et al. (eds.), CRC Press, Boca Raton, <b>1993</b>	
	<b>BK</b>	Manoharan M. et al., "Cholic Acid-Oligonucleotide Conjugates for Antisense Applications", <i>Bioorganic Med. Chem. Letts.</i> , <b>1994</b> , 4, 1053-1060	
	<b>BL</b>	Manoharan, M. et al., "Lipidic Nucleic Acids", <i>Tetrahedron Letts.</i> , <b>1995</b> , 36, 3651-3654	
	<b>BM</b>	Manoharan M. et al., "Oligonucleotide Conjugates: Alteration of the Pharmacokinetic Properties of Antisense Agents", <i>Nucleosides and Nucleotides</i> , <b>1995</b> , 14, 969-973	
	<b>BN</b>	Martin, P., "Ein neuer Zugang zu 2'-O-Alkylribonucleosiden und Eigenschaften deren Oligonucleotide", <i>Helvetica Chemica Acta</i> , <b>1995</b> , 78, 486-504 (English summary included)	
	<b>BO</b>	Meyer, R.B. et al., "Efficient, Specific Cross-Linking and Cleavage of DNA by Stable, Synthetic Complementary Oligodeoxynucleotides", <i>J. Am. Chem. Soc.</i> , <b>1989</b> , 111, 8517-8519	
	<b>BP</b>	Mishra, R.K. et al., "Improved leishmanicidal effect of phosphorothioate antisense oligonucleotides by LDL-medicated delivery", <i>Biochim. Et Biophysica</i> , <b>1995</b> , 1264, 229-237	
	<b>BQ</b>	Newman, "The Biology of PECAM-1," <i>J. Clin. Invest.</i> , <b>1997</b> , 99, 3-7	
	<b>BR</b>	Nies, A.S. et al., "Principles of Therapeutics", <i>Goodman &amp; Gilman's The Pharmacological Basis of Therapeutics</i> , 9th Ed., Hardman et al. (eds.), McGraw-Hill, New York, NY, <b>1996</b> , Ch. 3, 43-62	
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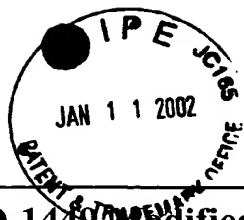
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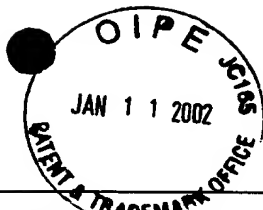
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	<b>BS</b>	Oberhauser, B. et al., "Effective incorporation of 2'-O-methyl-oligonucleotides into liposomes and enhanced cell association through modification with thiocholesterol", <i>Nucl. Acids Res.</i> , <b>1992</b> , <i>20</i> , 533-538	
	<b>BT</b>	Regezi et al., "Vascular Adhesion Molecules in Oral Lichen Planus," <i>Oral Surg. Oral Med. Oral Pathol.</i> , <b>1996</b> , <i>81</i> , 682-690	
	<b>BU</b>	Ruoslahti, "Fundamental Understandings: How Cancer Spreads," <i>Sci. Am.</i> , <b>1996</b> , 72-77	
	<b>BV</b>	Saison-Behmoaras, T. et al., "Short modified antisense oligonucleotides directed against Ha-ras point mutation induce selective cleavage of the mRNA and inhibit T24 cells proliferation", <i>EMBO J.</i> , <b>1991</b> , <i>10</i> , 1111-1118	
*	<b>BW</b>	Sambrook et al. (eds.), <i>Molecular Cloning: A Laboratory Manual</i> , Second Ed., Cold Spring Harbor Laboratory Press, <b>1989</b>	
	<b>BX</b>	Sanghvi, Y.S., "Heterocyclic Base Modifications in Nucleic acids and their Applications in Antisense Oligonucleotides", <i>Antisense Research and Applications</i> , <b>1993</b> , <i>Chapter 15</i> , CRC Press, Boca Raton, 273-288	
	<b>BY</b>	Secrist, J.A. et al., "Synthesis and Biological Activity of 4'-Thionucleosides", <i>10th International Roundtable: Nucleosides, Nucleotides and their Biological Applications</i> , Sept. 16-20 <b>1992</b> , <i>Abstract 21</i> , Park City, Utah, 40	
	<b>BZ</b>	Shea, R.G. et al., "Synthesis, hybridization properties and antiviral activity of lipid-oligodeoxynucleotide conjugates", <i>Nucl. Acids Res.</i> , <b>1990</b> , <i>18</i> , 3777-3783	
	<b>CA</b>	Shiohara et al., "Fixed drug Eruption: Expression of Epidermal Keratinocyte Intercellular Adhesion Molecule-1 (ICAM-1)", <i>Arch. Dermatol.</i> , <b>1989</b> , <i>125</i> , 1371-1376	
	<b>CB</b>	Smith-Jones, P.M. et al., "Antibody Labeling with Copper-67 Using the Bifunctional Macrocycle 4-[(1,4,8,11-Tetraazacyclotetradec-1-yl)methyl] benzoic Acid", <i>Bioconjugate Chem.</i> , <b>1991</b> , <i>2</i> , 415-421	
	<b>CC</b>	Stetler-Stevenson et al., "Tumor Cell Interactions with the Extracellular Matrix During Invasion and Metastasis," <i>Annu. Rev. Cell Biol.</i> , Palade, G.E. et al. (eds.), <b>1993</b> , <i>9</i> , 541-573	
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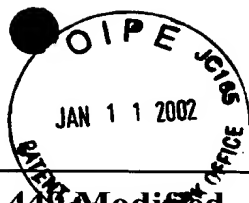
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	<b>CD</b>	Studer, M. et al., "One-Step Synthesis of Mono-N-substituted Azamacrocycles with a Carboxylic Group in the Side-Chain and their complexes with Cu <sup>2+</sup> and Ni <sup>2+</sup> ", <i>Helvetica Chimica Acta</i> , <b>1986</b> , 69, 2081-2086	
	<b>CE</b>	Svinarchuk, F.P. et al., "Inhibition of HIV proliferation in MT-4 cells by antisense oligonucleotide conjugated to lipophilic groups", <i>Biochimie</i> , <b>1993</b> , 79, 49-54	
	<b>CF</b>	U.S. Congress, Office of Technology Assessment, "The State-of-the-art in Genetic Screening", <i>Genetic Monitoring and Screening in the Workplace</i> , OTA-BA-455, U.S. Government Printing Office, Washington, D.C., <b>1990</b> , Ch. 5, 77-99	
	<b>CG</b>	Wahlestedt, C. et al., "Modulation of Anxiety and Neuropeptide Y-Y1 Receptors by Antisense Oligodeoxynucleotides", <i>Science</i> , <b>1993</b> , 259, 528-531	
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	<b>CI</b>	Zhang, Z. et al., "Uptake of N-(4'-pyridoxyl)amines and release of amines by renal cells: A model for transporter-enhanced delivery of bioactive compounds", <i>Proc. Natl. Acad. Sci.</i> , <b>1991</b> , 88, 10407-10410	
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	<b>CK</b>	Hamm, M. L. et al., "Incorporation of 2'-Deoxy-2'-mercaptocytidine into Oligonucleotides via Phosphoramidite Chemistry," <i>J. Org. Chem.</i> , <b>1997</b> , 62, 3415-3420	
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	<b>CM</b>	Polushin, N. N. et al., "Synthesis of Oligonucleotides Containing 2'-Azido-and 2'-Amino-2'-deoxyuridine Using Phosphotriester Chemistry," <i>Tetra. Letts.</i> , <b>1996</b> , 37(19), 3227-3230	
	<b>CN</b>	Ravasio, N. et al., "Selective Hydrogenations Promoted by Copper Catalysts. 1. Chemoselectivity, Regioselectivity, and Stereoselectivity in the Hydrogenation of 3-Substituted Steroids", <i>J. Org. Chem.</i> , <b>1991</b> , 56, 4329-4333	
	<b>CO</b>	Thomson, J. B. et al., "Synthesis and Properties of Diuridine Phosphate Analogues Containing Thio and Amino Modifications," <i>J. Org. Chem.</i> , <b>1996</b> , 61, 6273-6281	
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		Applicant <b>Muthiah Manoharan</b>	
		Filing Date <b>September 27, 2001</b>	Group <b>Not Yet Assigned</b>
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>CP</b>	Akhtar et al., "Stability of antisense DNA oligodeoxynucleotide analogs in cellular extracts and sera", <i>Life Sciences</i> , <b>1991</b> , 49, 1793-1801	
	<b>CQ</b>	"Antisense '97: A roundtable on the state of the industry," <i>Nature Biotech.</i> , <b>June 1997</b> , 15, 519-524	
	<b>CR</b>	Cucco, C. et al., "In Vitro and in Vivo Reversal of Multidrug Resistance in a Human Leukemia resistant Cell Line by <i>mdr1</i> Antisense Oligodeoxynucleotides," <i>Canc. Res.</i> , <b>1990</b> , 4332-4337	
	<b>CS</b>	Del Bufalo, D. et al., "Effect of cisplatin and c-myc antisense phosphorothioate oligodeoxynucleotides combination on a human colon carcinoma cell line in vitro and in vivo," <i>Brit. J. Canc.</i> , <b>1996</b> , 387-393	
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	<b>CU</b>	Gerwitz, A. M. et al., "Facilitating oligonucleotide delivery: Helping antisense deliver on its promise," <i>Proc. Natl. Acad. Sci.</i> , <b>1996</b> , 93, 3161-3163	
	<b>CV</b>	Gura, T., "Antisense has Growing Pains," <i>Science</i> , <b>1995</b> , 270, 575-577	
	<b>CW</b>	Jen, K.-Y. et al., "Suppression of Gene Expression by Targeted Disruption of Messenger RNA: Available Options and Current Strategies," <i>Stem Cells</i> , <b>2000</b> , 18, 307-319	
	<b>CX</b>	Kitajima, I. et al., "Ablation of Transplanted HTLV-I Tax-Transformed Tumors in Mice by Antisense Inhibition of NF- $\kappa$ B," <i>Science</i> , <b>1992</b> , 258, 1792-1795	
	<b>CY</b>	Leonetti, C. et al., "Antitumor effect of c-myc Antisense Phosphorothioate Oligodeoxynucleotides on Human Melanoma Cells in Vitro and in Mice," <i>J. Natl. Canc. Inst.</i> , <b>1996</b> , 88(7), 419-429	
	<b>CZ</b>	Monia, B. P. et al., "Sequence-specific Antitumor Activity of a Phosphorothioate Oligodeoxyribonucleotide Targeted to Human C-raf Kinase Supports an Antisense Mechanism of Action In Vivo," <i>Proc. Natl. Acad. Sci. USA</i> , <b>1996</b> , 93, 15481-15483	
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<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>DA</b>	Monia, B. P. et al., "Antitumor activity of a phosphorothioate antisense oligodeoxynucleotide targeted against C-raf kinase," <i>Nature Med.</i> , <b>1996</b> , 2(6), 668-675	
	<b>DB</b>	Neurath, M. F. et al., "Local administration of antisense phosphorothioate oligonucleotides to the p65 subunit of NF-kB abrogates established experimental colitis in mice," <i>Nature Medicine</i> , <b>1996</b> , 2(9), 998-1004	
	<b>DC</b>	Offensperger, W. B. et al., "Antisense Therapy of Hepatitis B Virus Infection," <i>Methods in Molecular Medicine: Antisense Therapeutics</i> , date unlisted, Agarwal, S., ed., 143-158	
	<b>DD</b>	Offensperger et al., "In vivo inhibition of duck hepatitis B virus replication and gene expression by phosphorothioate modified antisense oligodeoxynucleotides", <i>The EMBO Journal</i> , <b>1993</b> , 12(3), 1257-1262	
	<b>DE</b>	Oberbauer et al., "In vivo suppression of the renal Na <sup>+</sup> /P <sub>i</sub> cotransporter by antisense oligonucleotides", <i>PNAS:Physiology</i> , <b>May 1996</b> , 93, 4903-4906	
	<b>DF</b>	Patil, S. V. et al., "Syntheses and Properties of Oligothymidylate Analogs Containing Stereoregulated Phosphorothioate and Phosphodiester Linkages in an Alternating Manner," <i>Bioorganic &amp; Medicinal Chem. Letts.</i> , <b>1994</b> , 4(22), 2663-2666	
	<b>DG</b>	Rojanasakul, Y., "Antisense oligonucleotide therapeutics: drug delivery and targeting," <i>Advanced Drug Delivery Reviews</i> , <b>1996</b> , 18, 115-131	
	<b>DH</b>	Simons, M. et al., "Antisense c-myb oligonucleotides inhibit intimal arterial smooth muscle cell accumulation in vivo," <i>Nature</i> , <b>1992</b> , 359, 67-70	
	<b>DI</b>	Stull, R. A. et al., "Antigene, Ribozyme and Aptamer Nucleic Acid Drugs: Progress and Prospects," <i>Pharmac. Res</i> , <b>1995</b> , 12, 465-483	
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				Applicant <b>Muthiah Manoharan</b>			
				Filing Date <b>September 27, 2001</b>		Group <b>Not Yet Assigned</b>	
<b>U. S. PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Name	Class	Subclass	
	<b>DJ</b>	3,687,808	08/29/72	Merigan et al.	195	28	
	<b>DK</b>	4,689,320	08/25/87	Kaji	514	44	
	<b>DL</b>	4,806,463	02/21/89	Goodchild et al.	435	5	
	<b>DM</b>	5,004,810	04/02/91	Draper	536	27	
	<b>DN</b>	5,166,195	11/24/92	Ecker	514	44	
	<b>DO</b>	5,194,428	03/16/93	Agrawal et al.	514	44	
	<b>DP</b>	5,212,295	05/18/93	Cook	536	26.7	
	<b>DQ</b>	5,220,007	06/15/93	Pederson et al.	536	23.1	
	<b>DR</b>	5,242,906	09/07/93	Pagano et al.	514	44	
	<b>DS</b>	5,248,670	09/28/93	Draper et al.	514	44	
	<b>DT</b>	5,264,423	11/23/93	Cohen et al.	514	44	
	<b>DU</b>	5,442,049	08/15/95	Anderson et al.	536	24.5	
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Examiner Initial		Document No.	Date	Country	Translation YES NO		
	<b>DV</b>	WO 93/07883	04/29/93	PCT	X		
	<b>DW</b>	WO 93/18052	09/16/93	PCT	X		
	<b>DX</b>	WO 94/08003	04/14/94	PCT	X		
	<b>DY</b>	WO 95/13834	05/26/95	PCT	X		
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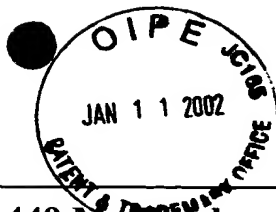
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	DZ	5,457,189	10/10/95	Crooke et al.	536	24.5
	EA	5,514,577	05/07/96	Draper et al.	435	238
	EB	5,514,788	05/07/96	Bennett et al.	536	23.1
	EC	5,523,389	06/04/96	Ecker et al.	536	23.1
	ED	5,580,767	12/03/96	Cowsert et al.	435	172.3
	EE	5,582,972	12/10/96	Lima et al.	435	6
	EF	5,582,986	12/10/96	Monia et al.	435	6
	EG	5,587,361	12/24/96	Cook et al.	514	44
	EH	5,591,600	01/07/97	Ecker	435	69.1
	EI	5,591,623	01/07/97	Bennett et al.	435	240.2
	EJ	5,591,720	01/07/97	Anderson et al.	514	44
	EK	5,599,797	02/04/97	Cook et al.	514	44
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	EM	5,620,963	04/15/97	Cook et al.	514	44

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	EO	5,661,134	08/26/97	Cook et al.	514	44
	EP	5,681,747	10/28/97	Boggs et al.	435	375
	EQ	5,681,944	10/28/97	Crooke et al.	536	24.5
	ER	5,691,461	11/25/97	Ecker et al.	536	24.32
	ES	5,670,633	09/23/97	Cook et al.	536	23.1
	ET	5,877,309	03/02/99	Dean et al.	536	24.5
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	EV	5,985,558	11/16/99	Dean et al.	435	6
	EW	6,111,094	08/29/00	Bennett et al.	536	024
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	EY	6,166,197	12/26/00	Cook et al.	536	024
	EZ	6,172,209	01/09/01	Manoharan et al.	536	023
	FA	6,271,358	08/07/01	Manoharan et al.	536	023
	FB	6,277,967	08/21/01	Manoharan	536	22.1
	FC	6,300,491	10/09/01	Bennett et al.	536	024

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					YES	NO

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